UNITED STATES PATENT AND TRADEMARK OFFICE

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ART UNIT	PAPER NUMBER
3691	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)
	10/808,611	DICKERSON, WENDELL
	Examiner	Art Unit	
	Elizabeth Rosen	3691	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 March 2004*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,5-10,14-19,22-26,29-32,35-38,41-44 and 47-51* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,5-10,14-19,22-26,29-32,35-38,41-44 and 47-51* is/are rejected.

7)☒ Claim(s) *15, 43, 44* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

    1.☐ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____.

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Status of Claims

1.   This action is in reply to the application filed on March 25, 2004.

2.   Claims 1, 5, 7, 8, 10, 14, 16, 17, 19, 23, 24, 26, 29-32, 35-38, 42, 44, and 49-51 have been amended.

3.   Claims 2-4, 11-13, 20, 21, 27, 28, 33, 34, 39-40, and 45-46 have been canceled.

4.   Claims 1, 5-10, 14-19, 22-26, 29-32, 35-38, 41-44, and 47-51 are currently pending and have been examined.

Claim Objections

5.   Claim 15 is objected to because of the following informalities: "*and term of the loan*" should be "and <u>the</u> term of the loan." Appropriate correction is required.

6.   Claim 43 is objected to because of the following informalities: "*reflecting different*" should be "reflecting <u>the</u> difference." Appropriate correction is required.

7.   Claim 44 is objected to because of the following informalities: the word "*payment*" in "a *stream of payment*") should be "payments." Appropriate correction is required.

Claim Rejections - 35 USC § 112

8.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9.   Claims 8 and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 8 states the limitation of "*wherein a portion of the stream of the payments is less than an interest due at the interest rate.*" It is unclear what portion is being referred to and whether the limitation is referring to the actual payments or the present value of the payments. For purposes of examination, Examiner interpreted "*portion of the stream of payments*" to mean any portion.

10.   Claims 7, 16, and 24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 16, the word "*substantially*" is variable and indefinite. For purposes of examination, because the claim states that "*portions of the stream of payments comprising interest sum to be*

substantially equal to total interest," Examiner interpreted this limitation to mean that the portions of the stream of payments comprising interest do <u>not</u> have to sum to be equal to total interest. Similarly, Examiner interpreted claim 24 such that the portions of the stream of payments comprising interest do not have to sum to be equal to or less than the total interest.

Double Patenting

11.   The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees.   A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

12.   A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

13.   Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14.   Claims 1, 5-10, 14-19, 22-26, 29-32, 35-38, 41-44, and 47-51 are provisionally rejected on the ground of nonstatutory double patenting over claims 1-28 of copending Application No. 10/402,224. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

15.   The subject matter claimed in the instant application is fully disclosed in the referenced copending application and would be covered by any patent granted on that copending application since the referenced copending application and the instant application are claiming common subject matter, as follows: fixed rate gradually stepped payment loan.

16.   Furthermore, there is no apparent reason why applicant would be prevented from presenting claims corresponding to those of the instant application in the other copending application. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Claim Rejections - 35 USC § 103

17.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

18.   Claims 1, 6, 10, 15, 19, 22, 26, 29-32, 35-38 and 41-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohn, May 1976 in view of Lovell, 1981, and further in view of Applicant's Admission (Dickerson, U.S. Patent Application Publication Number 2004/0254879 A1).

Claims 1 and 10:

Cohn discloses the limitations of:

- *selecting a principal to be borrowed* (see at least Page 404, Paragraph 1 (M_0 is the initial amount borrowed) and Page 409, Equation 3 (M_0));

- *defining an interest rate* (see at least Page 409, Paragraph 5 (single interest rate) and Page 409, Equation 3 (R_1));

- *defining an interest rate charged for the principal* (see at least Page 409, Paragraph 5 (single interest rate) and Page 409, Equation 3 (R_1));

- *selecting a loan term* (see at least Page 409, Paragraph 5 (life of the mortgage) and Page 409, Equation 3 (T));

- *selecting a term* (see at least Page 409, Paragraph 5 (life of the mortgage) and Page 409, Equation 3 (T));

- *selecting an initial payment* (see at least Page 409, Paragraph 5 (a nominal payment is specified) and Page 409, Equation 3 (Q_1));

- *calculating a growth rate* (see at least Page 409, Paragraph 5 (the payment rises at a fixed rate, g_Q, over the life of the mortgage));

- *whereby a stream of payments, as defined by the initial payment, the loan term, and the growth rate* (see at least Page 409, Paragraph 5 (the payment rises at a fixed rate, g_Q, over the life of the mortgage) and Page 409, Equation 3 (Q_t is the payment at time t. To determine the payments, the variables that are needed are as follows: (1) R_1, which is interest rate; (2) g_Q, which is the growth rate; (3) M_0, which is the principal; and (4) T, which is the loan term.)); and

- *whereby a stream of payments for the lending instrument, as defined by the initial payment, the loan term, and the growth rate* (see at least Page 409, Paragraph 5 (the payment rises at a fixed rate, g_Q, over the life of the mortgage) and Page 409, Equation 3 (Q_t is the payment at time t. To determine the payments, the variables that are needed are as follows: (1) R_1, which is interest rate; (2) g_Q, which is the growth rate; (3) M_0, which is the principal; and (4) T, which is the loan term.)); and
- *wherein the growth rate is neither a whole percent nor a half of one percent or combinations thereof* (see at least Page 409, Paragraph 5 (the payment rises at a fixed rate, g_Q, over the life of the mortgage) and Page 409, Equation 3 (If the equation is used to solve for g_Q, the number will most likely be a long decimal.)).

Cohn does not disclose, but Lovell, however, does disclose:

- *has a present value equal to the borrowed principal* (see at least Page 288, Footnote 4 (The amount borrowed, P, is equal to the sum of the future mortgage payments, discounted at the interest rate)); and
- *wherein the present value is calculated using the interest rate* (see at least Page 288, Footnote 4 (P is the principal, which is equal to the present value. To determine P, the interest rate must be known.)).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate Lovell's method of determining the present value and setting it equal to the principal with Cohn's mortgage. One of ordinary skill in the art would have been motivated to incorporate this feature for the purpose of determining the required payments for paying off the principal of a mortgage (see at least Lovell, Page 288, Footnote 4).

Cohn does not disclose, but Applicant, however, admits:

- *wherein the stream of payments increases during half or more of the loan term* (see at least Figure 3 (Prior Art) (The monthly payments are continuously increasing for more than half of the length of the loan.) and Paragraph 0014 in Background of the Invention (payments increase each year of the loan until reaching a payment that remains constant to maturity)).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate Applicant's admitted prior art method of increasing payments for at least half of the loan term with Cohn/Lovell's mortgage. One of ordinary skill in the art would have been motivated to incorporate this feature for the purpose of combining

features of similar mortgages. Furthermore, there are many ways and it is common to modify and combine mortgages (see at least Lovell, Page 285, Paragraph 4).

Claims 6, 15, and 22:

Cohn/Lovell/Admission discloses the limitations as described above. Cohn does not disclose, but Applicant admits:

- *wherein a comparable fixed rate conventional loan has a reference term and the same interest rate and principal, wherein the initial payment is equal to payments from the comparable fixed rate conventional loan, and the term of the loan is less than the reference term.* (see at least Figure 5 (Prior Art) (The two loans begin with the same payment, except the loan with the increasing payments has a shorter term that the conventional loan.) and Paragraph 0015 of Background of the Invention ("In the GEM loan, the first-year payments were equal to the fixed payment of a comparable 30-year conventional mortgage and, similar to the GPM mortgages, the GEM payments for subsequent years increased by increments of full or half percentage points, by 1% to 7.5% each year. The predefined steps of the GEM payments were allocated to the repayment of principal and produced a loan of shorter duration.")).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate Applicant's admitted prior art method of having a comparable loan with a shorter term with Cohn/LovellAdmission's mortgage. One of ordinary skill in the art would have been motivated to incorporate this feature for the purpose of having a comparable loan. Furthermore, if the interest rate, principal, and initial payments are the same, then the loan with the higher payments would necessarily have a shorter term.

Claim 19:

Cohn discloses the limitations of:

- *a stream of payments* (see at least Page 409, Paragraph 5 ("stream of real payments"));
- *the stream of payments having a predefined initial payment and subsequent payments comprised of the initial payment modified by a predefined growth rate* (see at least Page 409, Paragraph 5 (a nominal payment is specified) and Page 409, Equation 3 (Q_1 is the initial payment. Payments, Q_t, depend on the growth rate, g_Q.)); and

- *wherein the growth rate is neither a whole percent nor a half of one percent or combinations thereof* (see at least Page 409, Paragraph 5 (the payment rises at a fixed rate, g_Q, over the life of the mortgage) and Page 409, Equation 3 (If the equation is used to solve for g_Q, the number will most likely be a long decimal.)).

Cohn does not disclose, but Lovell, however, does disclose:

- *wherein the growth rate is calculated so the stream of payments has a present value equal to a borrowed principal* (see at least Page 288, Footnote 4 (The amount borrowed, P, is equal to the sum of the future mortgage payments, discounted at the interest rate)).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate Lovell's method of determining the present value and setting it equal to the principal with Cohn's mortgage. One of ordinary skill in the art would have been motivated to incorporate this feature for the purpose of determining the required payments for paying off the principal of a mortgage (see at least Lovell, Page 288, Footnote 4).

Cohn does not disclose, but Applicant, however, admits:

- *wherein the stream of payments increases at the growth rate during half or more of the loan term* (see at least Figure 3 (Prior Art) (The monthly payments are continuously increasing for more than half of the length of the loan.) and Paragraph 0012 in Background of the Invention (payments increase each year of the loan until reaching a payment that remains constant to maturity)).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate Applicant's admitted prior art method of increasing payments for at least half of the loan term with Cohn/Lovell's mortgage. One of ordinary skill in the art would have been motivated to incorporate this feature for the purpose of combining features of similar mortgages. Furthermore, there are many ways and it is common to modify and combine mortgages (see at least Lovell, Page 285, Paragraph 4).

Claim 26:

Cohn/Lovell/Admission discloses the limitations as described above. Cohn does not disclose, but Applicant, however, admits:

- *wherein the stream of payments comprises a plurality of fixed payments* (see at least Figure 3, Item 31a (Prior Art) (For a portion of the loan term, the payments are fixed.)).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate Applicant's admitted prior art mortgage with a plurality of fixed payments, with Cohn/Lovell's mortgage. One of ordinary skill in the art would have been motivated to incorporate this feature for the purpose of increasing payments until borrower can afford the higher fixed payments. Furthermore, there are many ways and it is common to modify and combine mortgages (see at least Lovell, Page 285, Paragraph 4).

Claims 29, 35, and 41:

Cohn/Lovell/Admission discloses the limitations as described above. Cohn further discloses:

- *wherein the stream of the payments is defined by the initial payment for a prespecified period of time and subsequent payments comprising the initial payment adjusted by the growth rate at prespecified intervals during the loan term* (see at least Page 409, Paragraph 5 (the payment rises at a fixed rate, g_Q, over the life of the mortgage) and Page 409, Equation 3 (Q_t is the payment at time t. To determine the payments, the variables that are needed are as follows: (1) R_1, which is interest rate; (2) g_Q, which is the growth rate; (3) M_0, which is the principal; and (4) T, which is the loan term.)); and

- *wherein the stream of payments is defined by the initial payment for a prescribed period of time and subsequent payments comprising the initial payment adjusted one or more times by the growth rate at prespecified intervals during the loan term* (see at least Page 409, Paragraph 5 (the payment rises at a fixed rate, g_Q, over the life of the mortgage) and Page 409, Equation 3 (Q_t is the payment at time t. To determine the payments, the variables that are needed are as follows: (1) R_1, which is interest rate; (2) g_Q, which is the growth rate; (3) M_0, which is the principal; and (4) T, which is the loan term.)).

Claims 30, 36, and 42:

Cohn/Lovell/Admission discloses the limitations as described above. Cohn further discloses:

- *selecting a growth rate* (see at least Page 409, Paragraph 5 (the payment rises at a fixed rate, g_Q, over the life of the mortgage)).

Cohn does not disclose, but Lovell, however, does disclose:

- *wherein the subsequent payments further comprise one or more secondary adjustments to the growth rate* (see at least Pages 289-290 (Payments increase in proportion to inflation rates. The growth rate of the payments changes in accordance with the inflation rates.)).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate Lovell's method of adjusting the growth rate with changes in inflation with Cohn/Lovell/Admission's mortgage. One of ordinary skill in the art would have been motivated to incorporate this feature for the purpose of having the payments grow at the same rate as inflation to eliminate risk so that the lender does not lose money and the borrower does not overpay and can afford the payments (see at least Lovell, pages 289-290).

Claims 31 and 37:

Cohn/Lovell/Admission discloses the limitations as described above. Cohn further discloses:

- *wherein the secondary adjustment comprises a lump sum payment at the end of the loan term, the lump sum payment equal to an outstanding balance of the principal* (see at least Page 409, Equation 3 (Q_t is the payment at time t, which could be the payment at the end of the term. This equation could be used to solve for any remaining variables, such as the lump sum payment at the end of the loan term.)).

Claims 32, 38, and 44:

Cohn/Lovell/Admission discloses the limitations as described above. Cohn does not disclose, but Lovell, however, does disclose:

- *wherein the secondary adjustment comprises a second stream of payments that fully amortizes an outstanding principal balance* (see at least Pages 289-290 (Payments increase in proportion to inflation rates. The growth rate of the payments changes in accordance with the inflation rates.)); and

- *wherein the secondary adjustment comprises a second stream of payment that amortizes an outstanding balance of the principal* (see at least Pages 289-290 (Payments increase in proportion to inflation rates. The growth rate of the payments changes in accordance with the inflation rates.)).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate Lovell's method of adjusting the growth rate with

Cohn/Lovell/Admission's mortgage. One of ordinary skill in the art would have been motivated to incorporate this feature for the purpose of adjusting the growth rate and requiring a second set of payments that can be used to pay the balance of the principal. It is possible that the previous set of payments based on the previous growth rate were insufficient to pay off the principal. Furthermore, it is possible that a second stream of payments at the adjusted growth rate could be used to pay the principal in a shorter amount of time than the previously set term of the mortgage. (see at least Lovell, pages 289-290).

Claim 43:

Cohn/Lovell/Admission discloses the limitations as described above. Cohn further discloses:

- *a lump sum payment at the end of the loan term* (see at least Page 409, Equation 3 (Q_t is the payment at time t, which could be the payment at the end of the term.)); and

- *the lump sum payment equal to an outstanding balance reflecting difference between the stream of the payments and a needed stream of payments that achieves the present value* (see at least Page 409, Equation 3 (This equation could be used to solve for any remaining variables, such as the lump sum payment at the end of the loan term.)).

19.   Claims 7, 16, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohn, May 1976 in view of Lovell, 1981, and further in view of Applicant's Admission (Dickerson, U.S. Patent Application Publication Number 2004/0254879 A1), and further in view of Official Notice.

Claims 7, 16, and 24:

Cohn/Lovell/Admission discloses the limitations as described above. Cohn does not disclose:

- *wherein the loan term is selected so that portions of the stream of payments comprising interest sum to be substantially equal to total interest paid on an equivalent fixed rate conventional loan.*

- *wherein portions of the stream of payments comprising interest sum to be substantially equal to or less than total interest paid on an equivalent fixed rate conventional loan.*

However, Examiner takes Official Notice that it is old and well known in the loan and mortgage arts to have payments with interest only portions that are less than or equal to interest on an equivalent loan. It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to offer a mortgage that has interest payments that sum to be similar to interest payments on a conventional loan. One of ordinary skill in the art would have been motivated to incorporate this feature for the purpose of creating a mortgage that is similar to an existing mortgage. Furthermore, there are many ways and it is common to modify and combine mortgages (see at least Lovell, Page 285, Paragraph 4).

20.   Claims 5, 14, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohn, May 1976 in view of Lovell, 1981, and further in view of Applicant's Admission (Dickerson, U.S. Patent Application Publication Number 2004/0254879 A1), and further in view of Sloane, 1978.

Claims 5, 14, and 23:

Cohn/Lovell/Admission discloses the limitations as described above. Cohn does not disclose, but Sloane, however, does disclose:

- Payments are equivalent to interest costs (see at least Paragraph 6 (early payments are equivalent to the interest costs)).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate Sloane's mortgage that has an initial payment that is equivalent to interest with Cohn/Lovell/Admission's mortgage. One of ordinary skill in the art would have been motivated to incorporate this feature for the purpose of paying the interest so that it isn't added to the principal.

Cohn does not disclose, but Applicant, however, admits:

- GPM payments can be *greater than or equal to an interest portion of a fixed rate conventional loan having constant payments and the interest rate, principal, and term* (see at least Paragraph 0016 of Background of the Invention ("The GPM payment amounts 31 *may* be even lower than the interest only portion P of the conventional payment amount 11." Therefore, it is possible that the GPM payments are the same or higher than the interest only portion of a conventional loan.)).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate Applicant's admitted prior art that GPM payments can be the

same or greater than the interest only portion of a conventional loan with Cohn/Lovell/Admission/Sloane's mortgage. One of ordinary skill in the art would have been motivated to incorporate this feature for the purpose of combining preexisting types of mortgages to develop a modified type of mortgage (see at least Lovell, Page 285, Paragraph 4).

21.   Claims 8, 9, 17, 18, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohn, May 1976 in view of Lovell, 1981, and further in view of Applicant's Admission (Dickerson, U.S. Patent Application Publication Number 2004/0254879 A1), and further in view of Sloane', 1978, and further in view of Kelly et al., U.S. Patent Application Publication Number 2001/0056397 A1.

Claim 8:

Cohn/Lovell/Admission discloses the limitations as described above. Cohn does not disclose, but Applicant, however, admits:

- *wherein a portion of the stream of the payments is less than an interest due at the interest rate* (see at least Figure 1 (Prior Art) (Item 11 shows the total monthly payment. p_r represents the interest portion that is due. In the early years of the loan, the interest portion is larger than the principal portion of the payments. Furthermore, as long as there is any interest due, then there can be a portion of the payments that is less than that interest due.)).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate Applicant's admitted prior art that a portion of the payments can be less than the interest due with Cohn/Lovell/Admission's mortgage. One of ordinary skill in the art would have been motivated to incorporate this feature for the purpose of paying a significant portion of the interest so that it is not added to the principal.

Cohn does not disclose, but Kelly, however, does disclose:

- *selecting a buydown amount* (see at least Paragraph 0035 (borrower can choose a buydown)); and
- *wherein the stream of payments is further defined by the buydown* (see at least Paragraph 0035 (buydown is used to calculated the payment)).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate Kelly's buydown with Cohn/Lovell/Admission's mortgage. One of

ordinary skill in the art would have been motivated to incorporate this feature for the purpose of lowering the interest rate (see at least Kelly, Paragraph 0035).

Claims 9 and 18:

Cohn/Lovell/Admission/Kelly discloses the limitations as described above. Cohn does not disclose, but Kelly, however, does disclose:

- *wherein the buydown amount is included as an increase to the selected principal* (see at least Paragraph 0035 (borrower can choose a buydown, which will be added to the current principal balance)).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate Kelly's buydown with Cohn/Lovell/Admission/Kelly's mortgage. One of ordinary skill in the art would have been motivated to incorporate this feature for the purpose of increasing the size of the loan (see at least Kelly, Paragraph 0035).

Claim 17:

Cohn/Lovell/Admission discloses the limitations as described above. Cohn does not disclose, but Applicant, however, admits:

- *wherein a portion of the stream of payments is less than an interest due at the interest rate for the portion of the stream of payments* (see at least Figure 1 (Prior Art) (Item 11 shows the total monthly payment. pr represents the interest portion that is due. In the early years of the loan, the interest portion is larger than the principal portion of the payments. Furthermore, as long as there is any interest due, then there can be a portion of the payments that is less than that interest due.)).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate Applicant's admitted prior art that a portion of the payments can be less than the interest due with Cohn/Lovell/Admission's mortgage. One of ordinary skill in the art would have been motivated to incorporate this feature for the purpose of paying a significant portion of the interest so that it is not added to the principal.

Cohn does not disclose, but Kelly, however, does disclose:

- *wherein the method used to form the lending instrument further comprises selecting a buydown amount* (see at least Paragraph 0035 (borrower can choose a buydown));

- *wherein the stream of payments is further defined by the buydown* (see at least Paragraph 0035 (buydown is used to calculated the payment)); and
- *wherein said buydown reflects an unpaid interest amount from said portion of the stream of payments* (see at least Paragraph 0035 (borrower can buydown by paying unpaid interest)).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate Kelly's buydown with Cohn/Lovell/Admission's mortgage. One of ordinary skill in the art would have been motivated to incorporate this feature for the purpose of lowering the interest rate (see at least Kelly, Paragraph 0035).

Claim 25:

Cohn/Lovell/Admission discloses the limitations as described above. Cohn does not disclose, but Kelly, however, does disclose:

- *a buydown that is included as an increase in the principal or a decrease in the initial payment* (see at least Paragraph 0035 (borrower can choose a buydown, which will be added to the current principal balance)).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate Kelly's buydown with Cohn/Lovell/Admission's mortgage. One of ordinary skill in the art would have been motivated to incorporate this feature for the purpose of increasing the size of the loan (see at least Kelly, Paragraph 0035).

22.   Claims 47-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cohn, 1976 in view of Lovell, 1981.

Claim 47:

Cohn discloses the limitations of:

- *a first code segment that is configured to receive a principal to be borrowed, an interest rate charged for the principal, a term, and an initial payment* (see at least Page 404, Paragraph 1 (M_0 is the initial amount borrowed); Page 409, Paragraph 5 (single interest rate, life of the mortgage, nominal payment); and Page 409, Equation 3 (M_0, R_1, T, Q_1)); and
- *a second code segment that is configured to calculate a stream of payments for the lending instrument, as defined by the initial payment, the loan term, and a growth rate, the stream of the payments* (see at least Page 409, Paragraph 5

(the payment rises at a fixed rate, g_Q, over the life of the mortgage) and Page 409, Equation 3 (Q_t is the payment at time t. To determine the payments, the variables that are needed are as follows: (1) R_1, which is interest rate; (2) g_Q, which is the growth rate; (3) M_0, which is the principal; and (4) T, which is the loan term.)).

Cohn does not disclose, but Lovell, however, does disclose:

- *having a present value equal to the borrowed principal, the present value calculated using the interest rate* (see at least Page 288, Footnote 4 (The amount borrowed, P, is equal to the sum of the future mortgage payments, discounted at the interest rate)).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate Lovell's method of determining the present value and setting it equal to the principal with Cohn's mortgage. One of ordinary skill in the art would have been motivated to incorporate this feature for the purpose of determining the required payments for paying off the principal of a mortgage (see at least Lovell, Page 288, Footnote 4).

Claim 48:

Cohn/Lovell discloses the limitations as described above. Cohn further discloses:

- *the initial payment for a prespecified period of time* (see at least Page 409, Paragraph 5 (nominal payment, life of the mortgage) and Page 409, Equation 3 (Q_1, T)); and
- *subsequent payments comprising the initial payment adjusted one or more times by the growth rate at prespecified intervals during the loan term* (see at least Page 409, Paragraph 5 (the payment rises at a fixed rate, g_Q, over the life of the mortgage) and Page 409, Equation 3 (Q_t is the payment at time t. To determine the payments, the variables that are needed are as follows: (1) R_1, which is interest rate; (2) g_Q, which is the growth rate; (3) M_0, which is the principal; and (4) T, which is the loan term.)).

Claim 49:

Cohn/Lovell discloses the limitations as described above. Cohn further discloses:

- *wherein the first code segment receives the growth rate* (see at least Page 409, Paragraph 5 (the payment rises at a fixed rate, g_Q, over the life of the mortgage)).

Cohn does not disclose, but Lovell, however, does disclose:

- *wherein the subsequent payments further comprise one or more secondary adjustments to the growth rate* (see at least Pages 289-290 (Payments increase in proportion to inflation rates. The growth rate of the payments changes in accordance with the inflation rates.)).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate Lovell's method of adjusting the growth rate with changes in inflation with Cohn/Lovell's mortgage. One of ordinary skill in the art would have been motivated to incorporate this feature for the purpose of having the payments grow at the same rate as inflation to eliminate risk so that the lender does not lose money and the borrower does not overpay and can afford the payments (see at least Lovell, pages 289-290).

Claim 50:

Cohn/Lovell discloses the limitations as described above. Cohn further discloses:

- *wherein the secondary adjustment comprises a lump sum payment at the end of the loan term, the lump sum payment equal to an outstanding principal balance* (see at least Page 409, Equation 3 (Q_t is the payment at time t, which could be the payment at the end of the term. This equation could be used to solve for any remaining variables, such as the lump sum payment at the end of the loan term.)).

Cohn does not disclose, but Lovell, however, does disclose:

- *wherein the second code section calculates the secondary adjustments* (see at least Pages 289-290 (Payments increase in proportion to inflation rates. The growth rate of the payments changes in accordance with the inflation rates.)).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate Lovell's method of adjusting the growth rate with changes in inflation with Cohn/Lovell's mortgage. One of ordinary skill in the art would have been motivated to incorporate this feature for the purpose of having the payments grow at the same rate as inflation to eliminate risk so that the lender does not lose money and the borrower does not overpay and can afford the payments (see at least Lovell, pages 289-290).

Claim 51:

Cohn/Lovell discloses the limitations as described above. Cohn does not disclose, but Lovell, however, does disclose:

- *wherein the second code section calculates the secondary adjustments* (see at least Pages 289-290 (Payments increase in proportion to inflation rates. The growth rate of the payments changes in accordance with the inflation rates.)); and

- *wherein the secondary adjustment comprises a second stream of payment that fully amortizes an outstanding principal balance* (see at least Pages 289-290 (Payments increase in proportion to inflation rates. The growth rate of the payments changes in accordance with the inflation rates.)).

It would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to incorporate Lovell's method of adjusting the growth rate with Cohn/Lovell's mortgage. One of ordinary skill in the art would have been motivated to incorporate this feature for the purpose of adjusting the growth rate and requiring a second set of payments that can be used to pay the balance of the principal. It is possible that the previous set of payments based on the previous growth rate were insufficient to pay off the principal. Furthermore, it is possible that a second stream of payments at the adjusted growth rate could be used to pay the principal in a shorter amount of time than the previously set term of the mortgage. (see at least Lovell, pages 289-290).

Conclusion

23.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Snowden, 1987, teaches about mortgages.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Rosen whose telephone number is 571-270-1850. The examiner can normally be reached on Monday - Friday, 8:30 am-6:00 pm est, alt Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Kalinowski can be reached at 571-272-6771. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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PRIMARY EXAMINER